



# **BERYLLIUM COPPER CB 101**

**Key Features** Good conductor of electricity Age hardenable **Good mechanical properties** 

#### **IMPORTANT**

We will manufacture to your required mechanical properties.

## key advantages to you, our customer



0.025mm to 21mm (.001" to .827")



Order 3m to 3t (10 ft to 6000 Lbs)



Delivery: within 3 weeks



Wire to your spec



E.M.S available



### **BERYLLIUM COPPER CB 101 available in:-**Round wire

- Bars or lengths
- Flat wire
- Shaped wire
- Rope/Strand

#### **Packaging**

- Coils
- Spools
- Bars or lengths



### Technical Datasheet AWS 140 Rev.2





Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	ASTM B196	Good conductor of electricity	Springs
Be	1.70	2.10	ASTM B197 BS 2873	Age hardenable Good mechanical properties	Electrical connectors and switches Electronic components
Fe	-	0.20	BS EN 12166		
Ni	-	0.30	Designations		
Со	-	0.30	W.Nr. 2.1247		
Cu	Cu BAL		UNS C17200 AWS 140		

Density	8.25 g/cm <sup>3</sup>	0.298 lb/in <sup>3</sup>	
Melting Point	980 °C 1800 °F		
Coefficient of Expansion	17.8 μm/m °C (20 – 100 °C)	9.9 x 10 <sup>-6</sup> in/in °F (70 – 212 °F)	
Modulus of Rigidity	47 kN/mm²	6817 ksi	
Modulus of Elasticity	123 kN/mm²	17840 ksi	

Heat Treatment of Finished Parts							
Condition or complication Allera Miles	Туре	Temperature		Time - (11a)	Carlina.		
Condition as supplied by Alloy Wire		°C	°F	Time (Hr)	Cooling		
Annealed	Age Harden	315 – 320	600 – 610	3	Air		
Spring Temper	Age Harden	315 – 320	600 – 610	2	Air		

Properties							
Condition	Approx. tensile strength		Approx. operating temperature				
Condition	N/mm²	ksi	°C	°F			
Annealed	<600	<87	up to +200	up to +390			
Annealed + Aged	800 – 1200	116 – 174	up to +200	up to +390			
Spring Temper	800 – 1200	116 – 174	up to +200	up to +390			
Spring Temper + Aged	1200 – 1600	174 – 232	up to +200	up to +390			

 $\label{thm:continuous} The above tensile strength \ ranges \ are \ typical. \ If \ you \ require \ different \ please \ ask.$ 

ISO 9001 Quality Management